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10/055,639	01/25/2002	Stephan V. Drappel	D/A1249 (1508/3420)	9674

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EXAMINER

DOE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 03/21/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,639

Applicant(s)

DRAPPEL et al

Examiner

J. DOTE

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 1/25/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-32 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-32 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 3
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

1. The disclosure is objected to because of the following informalities:

(1) The specification at page 10, lines 18-19, discloses a "copolyester-polycarbonate resin including at least a dihydric phenol constituent and an acid dichloride constituent." It is not clear how a polymer comprises two compounds having, respectively, two OH groups and two chloride groups.

(2) The specification at page 10, line 30, to page 11, line 24, discloses that the copolyester-polycarbonate resin includes a "polymer chain represented by the following formula: $(X \cdot Y \cdot Z \cdot T)_n$ wherein: X is a compound . . . Y is a compound . . . Z is a compound . . . T is a compound . . ." It is not clear how the polymer chain comprises individual compounds.

(3) The specification at page 12, lines 7-16, discloses that the copolyester-polycarbonate resin may be "1,3-benzenedicarbonyl dichloride, polymer with 1,4-benzenedicarbonyl dichloride, carbonic dichloride and 4,4'-(1-methylethylidene)-bis[phenol]; 1,3-benzenedicarbonyl dichloride, polymer with . . . ; carbonic dichloride, polymer with . . . ; phenol, 4,4'-(1-methylethylidene)bis-, polymer with . . . " It is not clear how copolymers comprise individual compounds.

(4) The specification at page 12, lines 7-18, discloses that the copolyester-polycarbonate resin can be one of the six listed polymers. However, all six listed polyester refer to the same

polymer: they do not represent six different polymers. See ACS Registry No. 7159-80-7, which discloses that the six listed polymers in the specification are the common names for one particular polymer obtained from reacting the four compounds, phosgene (i.e., carbonic dichloride), 1,3-benzenedicarbonyl dichloride, 1,4-benzenedicarbonyl dichloride, and 4,4'-(1-methylethylidene)-bis[phenol].

(5) The use of trademarks, e.g., Mylar [sic: MYLAR] at page 6, line 19, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

(1) In claim 11, the recitation "about 10 and about 5000 Ångstroms" (emphasis added) lacks antecedent basis in the specification. See page 12, line 20, of the specification, which discloses a dry thickness of "about 50 and about 5000 Ångstroms."

(2) In claim 17, the recitation "metal-free phthalocyanine" lacks antecedent basis in the specification. See page 13, line 6, of the specification, which discloses the photoconductive material "X-form of metal free phthalocyanine." The term "metal-free phthalocyanine" is broader than the disclosed "X-form metal free phthalocyanine" because it includes metal free phthalocyanines that are not of the X-form, such as those of the π form.

(3) In claim 18, the recitation "between about 5.0 and about 30.0 g/cm, as measured using a reverse peel test" lacks antecedent basis in the specification. See Table 1 at page 25, of the specification, which discloses only two values of the adhesion strength, 16.7 g/cm and 5.2 g/cm. There is no disclosure of the range "about 5.0 and about 30.0 g/cm" recited in instant claim 18. In addition, the specification at page 25, lines 5-7, discloses that the reverse peel test measures the adhesive strength between the charge generation layer and the interfacial adhesion layer. Instant claim 18 merely recites that "the interfacial layer has an adhesive strength . . ."

(4) The entire recitation in claim 19 lacks antecedent basis in the specification. See page 25, lines 19-20, and Table 1 of the specification, which discloses that the 90-degree normal peel test measures the adhesive strength between the charge transport layer and the charge generating layer, not the broad "imaging member" recited in instant claim 19. In addition, Table 1 of the specification discloses only two values of the adhesion strength measured by the normal peel test, >200 g/cm and 114.9 g/cm. There is no disclosure of the range "at least 100 g/cm" recited in instant claim 19.

(5) In claim 21, the recitation "a plate" lacks antecedent basis in the specification. See page 6, lines 6-12, of the specification.

(6) The entire recitation of claim 30 lacks antecedent basis in the specification.

3. The examiner notes that the instant specification defines the terms "imaging member" and "charge imaging layer," which are recited in the instant claims, to mean a photoconductor and a photogenerating layer, respectively. See page 5, lines 25-26, of the specification, which discloses that "[t]he terms 'imaging member' and 'photoconductor' are used interchangeably throughout the present application." Also see page 12, lines 27-29, of the specification, which discloses that "[a]s used herein, the term

'charge imaging layer' is used interchangeably with
'photogenerating layer.'"

The examiner also notes that all six named polymers listed in the Markush groups recited in claims 8 and 29 refer to the same polymer. See the discussion of ACS Registry No. 71519-80-7 in paragraph 1, item (4), supra. Thus, claims 8 and 29 only recite one particular copolyester-polycarbonate resin.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-8, 17, 20, 26-29, 31, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 26 are indefinite in the phrase "copolyester-polycarbonate resin comprises a dihydric phenol constituent and an acid dichloride constituent" because it is not clear how a polymer comprises a compound having two OH groups and a compound having two chloride groups.

Claim 5 and 31 are indefinite in the phrase "polymer chain represented by the following formula: $(X \cdot Y \cdot Z \cdot T)_n$ wherein: X is a

compound . . . Y is a compound . . . Z is a compound . . . T is a compound . . . " because it is not clear how the polymer chain comprises individual compounds.

Claims 8 and 29 are indefinite in the phrase "copolyester-polycarbonate resin selected from the group consisting of: 1,3-benzenedicarbonyl dichloride, polymer with 1,4-benzenedicarbonyl dichloride, carbonic dichloride and 4,4'-(1-methylethylidene)-bis[phenol]; 1,3-benzenedicarbonyl dichloride, polymer with . . . ; carbonic dichloride, polymer with . . . ; phenol, 4,4'-(1-methylethylidene)bis-, polymer with . . . " because it is not clear how copolymers comprise individual compounds.

Claim 17 is indefinite in the phrase "photoconductive material selected from the group consisting of vanadyl phthalocyanin [sic] . . . selenium alloys selected from the group consisting of selenium-tellurium . . . selenium arsenide, and mixtures thereof" (emphasis added) because it is not clear to which Markush group the phrase "and mixtures thereof" refers, i.e., the first broader Markush group of photoconductive material or the second Markush group of selenium alloys. In addition, the phrase is further indefinite because one of the two Markush groups is not closed, i.e., it is missing the conjunction "and." Proper Markush language is "R is selected from the group consisting of . . . and . . . " or "R is . . . or . . . " MPEP 2173.05(h) (Rev. 1, Feb. 2003). The group recited in the instant

claim is open, not closed. Hence, it is not clear what is the scope of the instant claim.

Claim 18 is indefinite because it is not clear with respect to what the interfacial adhesive layer has an adhesive strength, e.g., the substrate or the charge imaging layer.

Claim 20 is indefinite in the phrase "a structural form selected from the group consisting of rigid and flexible" because the terms "rigid" and "flexible" do not describe a structural form, but describe a property.

6. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted element is an electrically conductive substrate.

Instant claims 1-24, 31, and 32 recite an imaging member comprising a support, a charge blocking layer, an interfacial adhesive layer, and a charge imaging layer. Instant claims 25-30 recite a method for fabricating an imaging member comprising the steps of providing a support and providing a charge imaging layer. As discussed in paragraph 3, supra, the terms "imaging member" and "charge imaging layer" recited in the instant claims are defined by the instant specification to mean a photoconductor and a photogenerating layer, respectively. However, the instant

claims fail to recite that the imaging member comprises an electrically conductive substrate.

According to the specification, an electrically conductive substrate is an essential element of an electrophotographic imaging member needed to form a latent electrostatic image. See the instant specification, page 1, lines 8-15, page 6, lines 9-10 and 31-33; and examples 1-4. The specification at page 1, lines 8-15, discloses that "an electrophotographic substrate . . . containing a photoconductive layer on a conductive layer is imaged by first uniformly electrically charging the surface . . . is then exposed to a pattern of activating electromagnetic radiation, such as light . . . the light . . . dissipates the charge in the illuminated areas . . . leaving behind an electrostatic latent image" (emphasis added). It is not clear how an electrophotographic imaging member forms an electrostatic latent image without the presence of an electrically conductive substrate.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-32 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. An electrically conductive substrate is critical or essential to the practice of the invention. The instant claims do not recite the presence of said essential element, and are not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Instant claims 1-32 do not recite the presence of said critical or essential element, as discussed supra in paragraph 6, which is incorporated herein by reference.

The specification does not disclose or teach an imaging member that does not comprise an electrically conductive substrate. The specification only discloses making and using imaging members having an electrically conductive substrate having thereon an charge imaging layer (i.e., a photogenerating layer). Specification, page 1, lines 8-15, page 6, lines 9-10 and 31-33, and instant examples 1-4. All the evidence in the instant specification indicates that an imaging member not comprising an electrically conductive substrate cannot form an electrostatic latent image. Moreover, all the examples in the specification utilize an imaging member comprising an electroconductive substrate and a photogenerating layer. Accordingly, on the present record, it would require undue

experimentation for one of ordinary skill in the art to use an imaging member without the critical or essential element to form an electrostatic latent image. The full scope of the instant claimed subject matter cannot be practiced based on the limited disclosure provided by the instant specification.

9. Claims 5, 17, and 31 are objected to because of the following informalities:

In claims 5 and 31, the misspelling "phthallic."

In claim 17, the misspelling "phthalocyanin."

Appropriate correction is required.

10. The polymer chain formula recited in instant claims 5 and 31 is interpreted by the examiner as to mean a polymer chain obtained by reacting compounds X, Y, X, and T. In other words, the chain is reaction product of compound X with compounds Y and Z and of compound X with compound T. The following reactions are based on this interpretation.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the

prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-14, 16, 20-24, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,686,215 (Bergfjord) combined with US 4,595,602 (Schank), American Chemical Society (ACS) Registry No. 71519-80-7, US 5,084,526 (Harris).

Bergfjord discloses an electrophotographic imaging member comprising a flexible titanium coated polyester web, having thereon a charge blocking layer, an adhesive layer comprising a polyester resin and a polyarylate resin, and a charge imaging layer. The charge imaging layer comprises a charge generation layer and a charge transport layer. The charge generation layer comprises a hydroxygallium phthalocyanine. See Example II at col. 18. The flexible titanium coated polyester web is within the structural limitations recited in instant claims 20 and 21. The charge imaging layer is within the compositional and

structural limitations recited in instant claims 14, 16, and 22. Bergfjord further discloses that the imaging member may also comprise a backing layer applied to the substrate side opposite the charge imaging layer. The backing layer provides flatness and/or abrasion resistance. Col. 16, lines 34-36. In other words, the backing layer is anti-curl backing layer, which is within the limitation recited in instant claim 23.

Bergfjord does not exemplify an imaging member comprising an interfacial adhesive layer as recited in instant claim 1. However, Bergfjord discloses that its imaging member may further comprise an overcoat layer to improve resistance to abrasion. Col. 16, lines 33-34.

Schank discloses an overcoat layer for electrophotographic imaging members, such as those similar to Bergfjord. Col. 8, lines 53-57, and col. 9, lines 4-9. The overcoat layer comprises a cross-linked siloxanol-colloidal silica hybrid material. Col. 2, lines 37-39, and col. 2, line 55, to col. 3, line 25. The overcoat layer does not degrade images under cycling conditions over an extended period of time at elevated temperatures and high relative humidity. The overcoat layer provides excellent release and transfer of toner particles from the electrophotographic imaging member, and extends the useful life of the imaging member. Col. 2, lines 39-49. Schank further discloses that a primer layer may be applied to the imaging

member to improve the adhesion of the cross-linked siloxanol-colloidal silica hybrid overcoat layer to the imaging member. Col. 8, lines 38-41. Schank discloses a primer layer comprising the poly(carbonate-co-ester) GE 3250 and a polymethylmethacrylate resin. The primer layer had a dry thickness of less than about 0.03-0.05 μm . See example IV at col. 15, lines 24-32. Schank's primer layer is an interfacial adhesive layer. The GE 3250 polymer is a copolymer of bisphenol A and a phthalic acid dichloride ester, which is within the compositional limitations recited in instant claims 2-4, 7, and 8. See ACS Registry No. 71519-80-7. The GE 3250 (i.e., LEXAN 3250) polymer is identified as having the structure disclosed in Harris, col. 17, lines 1-3, where the proportion of para to meta bonds in the diacid residuum was 73/27. The primer layer thickness of about 0.03-0.05 μm (i.e., 300 to 500 Ångstroms) is within the ranges recited in instant claims 11-13.

Schank does not disclose that the GE 3250 polymer comprises the number of polymer chains recited in instant claims 5, 6, 31, and 32. Nor does Schank disclose that the GE 3240 polymer has a weight average molecular weight as recited in instant claims 9 and 10. However, the instant specification at page 12, lines 1-6, discloses that a copolyester-polycarbonate polymer having a weight average molecular weight about 200,000 is identified in the CAS (i.e., ACS) Registry as number 71519-80-7.

The molecular weight of about 200,000 is within the ranges recited instant claims 9 and 10. Such a copolyester-polycarbonate polymer having a weight-average molecular weight of about 200,000 would comprise about 200 polymer chains. The number "about 200" is within the ranges recited in instant claims 4, 5, 31, and 32. (The number of polymer chains is determined by dividing 200,000 by the molecular weight of the polymer chain of the reaction product of compound X with compounds Y and Z and of compound X with compound T.) As discussed, supra, the GE 3250 polymer is described in ACS Registry as number 71519-80-7. Thus, it is reasonable to presume that the GE 3250 polymer has the number of polymer chains recited in instant claims 4, 5, 31, and 32, and has a weight average molecular weight within the ranges recited in instant claims 9 and 10. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

It would have been obvious for a person having ordinary skill in the art to further coat the imaging member disclosed by Bergffjord with the primer layer comprising the poly(carbonate-co-ester) GE 3250 and the overcoat layer taught by Schank, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic imaging member that provides stable images over an extended period of time at

elevated temperatures and high relative humidity, and has a useful long life.

14. Claims 1-15, 17, 20-24, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,418,100 (Yu'100) combined with Schank, ACS Registry No. 71519-80-7, and Harris.

Yu'100 discloses an electrophotographic imaging member comprising a flexible titanium coated polyester web, having thereon a charge blocking layer, an adhesive layer comprising a cross-linked copolyester resin, and a charge imaging layer. The imaging member further comprises an anti-curl layer on the backside of the coated polyester web. The charge imaging layer comprises a charge generation layer and a charge transport layer. The charge generation layer comprises the charge generating compound benzimidazole perylene. See Example II at col. 16. The flexible titanium coated polyester web is within the structural limitations recited in instant claims 20 and 21. Yu'100 further discloses that the charge generating compound may equally be a metal-free phthalocyanine or a vanadyl phthalocyanine. Col. 10, lines 1-5. Thus, the charge imaging layer is within the compositional and structural limitations recited in instant claims 14, 15, 17, and 22.

Yu'100 does not exemplify an imaging member comprising an interfacial adhesive layer as recited in instant claim 1.

However, Yu'100 discloses that its imaging member may further comprise an overcoat layer. Col. 14, lines 1-10.

Schank discloses a particular overcoat layer for electrophotographic imaging members, such as those similar to Bergfjord. Schank further discloses that a primer layer comprising the poly(carbonate-co-ester) GE 3250 and a polymethacrylate resin is used to improve the adhesion of the overcoat layer to the imaging member. The discussion of Schank, Harris, and ACS Registry number 71519-80-7 in paragraph 13 above is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art to further coat the imaging member disclosed by Yu'100 with the primer layer comprising the poly(carbonate-co-ester) GE 3250 and the overcoat layer taught by Schank, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic imaging member that provides stable images over an extended period of time at elevated temperatures and high relative humidity, and has a useful long life.

15. Claims 1-10, 14, 17, 18, 20-22, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 6-012552 (JP'552), as evidenced by the Japanese Patent Office (JPO) abstract and DERWENT abstract Acc. No. 1985-054083, both

describing JP'552, combined with ACS Registry No. 71519-80-7, Harris, and US 5,660,961 (Yu'961).

JP'552 discloses an imaging plate comprising a conductive support and a charge imaging layer. The charge imaging layer comprises a charge generating layer comprising a non-metal phthalocyanine pigment, an interfacial layer, and a charge transporting layer. See the DERWENT and JPO abstracts. The interfacial layer comprises a polyester carbonate polymer. See the DERWENT and JPO abstracts, and the chemical formula in JP'552 at page 450, col. 2. JP'552 exemplifies an imaging plate comprising the commercially-available polyester carbonate polymer GE 3250. See JP'552, Tables 1 and 2 at page 454, second example A. JP'552's interfacial layer improves the adhesive strength between the charge transport layer and the charge generation layer. See the DERWENT and JPO abstracts. The conductive plate is within the structural limitations recited in instant claims 20 and 21. The charge imaging layer is within the compositional and structural limitations recited in instant claims 14, 17, and 22. JP'552's interfacial layer is an interfacial adhesive layer. The GE 3250 polymer is a copolymer of bisphenol A and a phthalic acid dichloride ester, which is within the compositional limitations recited in instant claims 1-4, 7, and 8. See ACS Registry No. 71519-80-7. The GE 3250 (i.e., LEXAN 3250) polymer is identified as having the

structure disclosed in Harris, col. 17, lines 1-3, where the proportion of para to meta bonds in the diacid residuum was 73/27.

JP'552 does not disclose that the GE 3250 polymer comprises the number of polymer chains recited in instant claims 5, 6, 31, and 32. Nor does JP'552 disclose that the GE 3240 polymer has a weight average molecular weight as recited in instant claims 9 and 10. However, the instant specification at page 12, lines 1-6, discloses that a copolyester-polycarbonate polymer having a weight average molecular weight about 200,000 is identified in the CAS (i.e., ACS) Registry as number 71519-80-7. The molecular weight of about 200,000 is within the ranges recited instant claims 9 and 10. Such a copolyester-polycarbonate polymer having a weight-average molecular weight of about 200,000 would comprise about 200 polymer chains. The number "about 200" is within the range recited in instant claims 4, 5, 31, and 32. (The number of polymer chains is determined by dividing 200,000 by the molecular weight of the polymer chain of the reaction product of compound X with compounds Y and Z and of compound X with compound T.) As discussed, supra, the GE 3250 polymer is described in ACS Registry as number 71519-80-7. Thus, it is reasonable to presume that the GE 3250 polymer has the number of polymer chains recited in instant claims 4, 5, 31, and 32, and has a weight average molecular weight within the

ranges recited in instant claims 9 and 10. The burden is on applicants to prove otherwise. Fitzgerald, supra.

JP'552 does not disclose that its interfacial layer has an adhesive strength as recited in instant claim 18. However, as discussed, supra, JP'552's interfacial layer is within the compositional limitations of claim 1 from which claim 18 depends. Thus, it is reasonable to presume that JP'552's interfacial layer has the adhesive strength between about 5.0 and about 30.0 g/cm as recited in instant claim 18. The burden is on applicants to prove otherwise. Fitzgerald, supra.

JP'552 also does not disclose the use of a charge blocking layer.

Yu'961 discloses a particular charge blocking layer comprising solid finely divided light scattering silica particles having an average particle size of about 0.3 μm dispersed in a matrix comprising the reaction product of poly(2-hydroxyethyl-methacrylate) and an organosilane. Col. 7, lines 15-25, and example IV at col. 31. Yu'961 discloses that its charge blocking layer also has anti-reflection characteristics. The charge blocking layer eliminates interference fringes. Col. 6, lines 43-52. The charge blocking layer "suppresses the development of charge deficient spots associated with copy printout defects." Col. 7, lines 1-3. According to Yu'961, electrophotographic imaging members comprising its charge

blocking layer have high quality imaging and printing characteristics. Col. 7, lines 7-10. Yu'961 discloses that any suitable photogenerating layer may be applied to its charge blocking layer. Col. 10, lines 43-45.

It would have been obvious for a person having ordinary skill in the art to incorporate Yu'961's charge blocking layer in the imaging member disclosed by JP'552 because that person would have had a reasonable expectation of successfully obtaining an electrophotographic imaging member having the benefits disclosed by Yu'961.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.

JLD
March 19, 2003

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1500
1700